

	Type	L #	Hits	Search Text	DBs	Time Stamp
1	BRS	L1	49	("4545073" "4249138" "5481223" "5719971" "4282742" "5937335" "4247834" "4458164" "4459566" "4484221" "4994765" "5247215" "5278522" "5304955" "5311318" "5650738" "4330760" "4868891" "4516170" "4783849" "5706315" "4334317" "4603435" "4623890" "4633511" "5847612" "5434937" "5652534" "4348757" "4525668" "4846540" "5627529"	USPAT	2003/07/26 22:54
2	IS&R	L2	2153	((455/260) or (455/76) or (455/77) or (455/84) or (455/85) or (455/86) or (455/87) or (455/115.1) or (455/180.3) or (455/190.1) or (455/192.1) or (455/207) or (455/208) or (455/209)).CCLS.	USPAT	2003/07/26 23:18
3	BRS	L3	234088	(CMOS OFFSET PHASE LOCK LOOP OR CMOS OFFSET PLL LOOP) AND (CMOS SUBSTRATE)	USPAT	2003/07/26 23:21
4	BRS	L4	14	3 AND (CMOS ADJ PHASE ADJ LOCK ADJ LOOP)	USPAT	2003/07/26 23:21
5	BRS	L5	13	4 AND (VCO DOWN CONVERSION MIXER) AND (LOW CLOCK FREQUENCY)	USPAT	2003/07/26 23:23
6	BRS	L9	16279	3 AND (SUBSYSTEM MIXER)	USPAT	2003/07/26 23:24
7	BRS	L11	5	10 AND (BANDPASS FILTER) AND (LOOP SAME FILTER)	USPAT	2003/07/26 23:25

	Type	L #	Hits	Search Text	DBs	Time Stamp
8	BRS	L14	213	9 AND PREAMPLIFIER AND MIXER	USPAT	2003/07/26 23:27
9	BRS	L15	1	14 AND (PHASE ADJ DETECTOR) AND (FREQUENCY ADJ CONVERSION)	USPAT	2003/07/26 23:27
10	BRS	L10	5	5 AND (PHASE ADJ DETECTOR)	USPAT	2003/07/26 23:48
11	BRS	L18	14	3 AND (CMOS ADJ PHASE ADJ LOCK ADJ LOOP)	USPAT	2003/07/26 23:49

Titles of Most Frequently Occurring Classifications of Patents Returned  
From A Search of 09698498 on November 13, 2002

- 3 331/1A (1 OR, 2 XR)  
Class 331 : OSCILLATORS  
331/1R AUTOMATIC FREQUENCY STABILIZATION USING A PHASE  
OR FREQUENCY SENSING MEANS  
331/1A .AFC with logic elements
- 3 348/731 (3 OR, 0 XR)  
Class 348 : TELEVISION  
348/725 RECEIVER CIRCUITRY  
348/731 .Tuning
- 3 455/76 (0 OR, 3 XR)  
Class 455 : TELECOMMUNICATIONS  
455/73 TRANSMITTER AND RECEIVER AT SAME STATION (E.G.,  
TRANSCEIVER)  
455/75 .With frequency stabilization (e.g., automatic  
frequency control)  
455/76 ..Synthesizer
- 2 323/267 (0 OR, 2 XR)  
Class 323 : ELECTRICITY: POWER SUPPLY OR REGULATION  
SYSTEMS  
323/234 OUTPUT LEVEL RESPONSIVE  
323/265 .Using a three or more terminal semiconductive  
device as the final control device  
323/267 ..Including plural loads commonly controlled
- 2 323/283 (2 OR, 0 XR)  
Class 323 : ELECTRICITY: POWER SUPPLY OR REGULATION  
SYSTEMS  
323/234 OUTPUT LEVEL RESPONSIVE  
323/265 .Using a three or more terminal semiconductive  
device as the final control device  
323/282 ..Switched (e.g., switching regulators)  
323/283 ...Digitally controlled
- 2 326/30 (0 OR, 2 XR)  
Class 326 : ELECTRONIC DIGITAL LOGIC CIRCUITRY  
326/21 SIGNAL SENSITIVITY OR TRANSMISSION INTEGRITY  
326/30 .Bus or line termination (e.g., clamping,  
impedance matching, etc.)

2 326/86 (1 OR, 1 XR)

Class 326 : ELECTRONIC DIGITAL LOGIC CIRCUITRY

326/62 INTERFACE (E.G., CURRENT DRIVE, LEVEL SHIFT,  
ETC.)

326/82 .Current driving (e.g., fan in/out, off chip  
driving, etc.)

326/83 ..Field-effect transistor

326/86 ...Bus driving

2 327/115 (0 OR, 2 XR)

Class 327 : MISCELLANEOUS ACTIVE ELECTRICAL NONLINEAR  
DEVICES, CIRCUITS, AND SYSTEMS

327/100 SIGNAL CONVERTING, SHAPING, OR GENERATING

327/113 .Frequency or repetition rate conversion or  
control

327/114 ..Of output rectangular waveform

327/115 ...Frequency division

2 327/117 (0 OR, 2 XR)

Class 327 : MISCELLANEOUS ACTIVE ELECTRICAL NONLINEAR  
DEVICES, CIRCUITS, AND SYSTEMS

327/100 SIGNAL CONVERTING, SHAPING, OR GENERATING

327/113 .Frequency or repetition rate conversion or  
control

327/117 ..Frequency division

2 327/231 (0 OR, 2 XR)

Class 327 : MISCELLANEOUS ACTIVE ELECTRICAL NONLINEAR  
DEVICES, CIRCUITS, AND SYSTEMS

327/100 SIGNAL CONVERTING, SHAPING, OR GENERATING

327/231 .Phase shift by less than period of input

2 327/237 (2 OR, 0 XR)

Class 327 : MISCELLANEOUS ACTIVE ELECTRICAL NONLINEAR  
DEVICES, CIRCUITS, AND SYSTEMS

327/100 SIGNAL CONVERTING, SHAPING, OR GENERATING

327/231 .Phase shift by less than period of input

327/237 ..Variable or adjustable

2 331/117FE (0 OR, 2 XR)

Class 331 : OSCILLATORS

331/107R SOLID STATE ACTIVE ELEMENT OSCILLATOR

331/108R .Transistors

331/117R ..L-C type

331/117FE ...Field-effect transistor active element

- 2 331/16 (0 OR, 2 XR)  
Class 331 : OSCILLATORS  
331/1R AUTOMATIC FREQUENCY STABILIZATION USING A PHASE  
OR FREQUENCY SENSING MEANS  
331/16 .Tuning compensation
- 2 331/172 (1 OR, 1 XR)  
Class 331 : OSCILLATORS  
331/172 WITH SYNCHRONIZING, TRIGGERING OR PULSING  
CIRCUITS
- 2 331/1R (1 OR, 1 XR)  
Class 331 : OSCILLATORS  
331/1R AUTOMATIC FREQUENCY STABILIZATION USING A PHASE  
OR FREQUENCY SENSING MEANS
- 2 331/34 (0 OR, 2 XR)  
Class 331 : OSCILLATORS  
331/1R AUTOMATIC FREQUENCY STABILIZATION USING A PHASE  
OR FREQUENCY SENSING MEANS  
331/34 .Particular frequency control means
- 2 331/57 (1 OR, 1 XR)  
Class 331 : OSCILLATORS  
331/57 RING OSCILLATORS
- 2 377/48 (0 OR, 2 XR)  
Class 377 : ELECTRICAL PULSE COUNTERS, PULSE DIVIDERS, OR  
SHIFT REGISTERS: CIRCUITS AND SYSTEMS  
377/27 SYSTEMS  
377/47 .Pulse multiplication or division  
377/48 ..Multiplication or division by a fraction
- 2 455/182.3 (0 OR, 2 XR)  
Class 455 : TELECOMMUNICATIONS  
455/130 RECEIVER OR ANALOG MODULATED SIGNAL FREQUENCY  
CONVERTER  
455/150.1 .Signal selection based on frequency (e.g.,  
tuning)  
455/179.1 ..Channel or station selection  
455/182.3 ...Fine tuning
- 2 455/333 (0 OR, 2 XR)  
Class 455 : TELECOMMUNICATIONS  
455/130 RECEIVER OR ANALOG MODULATED SIGNAL FREQUENCY

## CONVERTER

- 455/313 .Frequency modifying or conversion
- 455/323 ..Particular frequency conversion structure or  
circuitry
- 455/333 ...Transistor or integrated circuit

## 2 455/86 (2 OR, 0 XR)

Class 455 : TELECOMMUNICATIONS

455/73 TRANSMITTER AND RECEIVER AT SAME STATION (E.G.,  
TRANSCEIVER)

455/84 .With a common signal processing stage

455/86 ..Transmitter oscillator used as local  
oscillator

## 2 714/716 (2 OR, 0 XR)

Class 714 : ERROR DETECTION/CORRECTION AND FAULT  
DETECTION/RECOVERY

714/699 PULSE OR DATA ERROR HANDLING

714/712 .Transmission facility testing

714/715 ..Test pattern with comparison

714/716 ...Loop-back

Most Frequently Occurring Classifications of Patents Returned  
From A Search of 09698498 on November 13, 2002

Original Classifications

3 348/731  
2 323/283  
2 327/237  
2 455/86  
2 714/716

Cross-Reference Classifications

3 455/76  
2 323/267  
2 326/30  
2 327/115  
2 327/117  
2 327/231  
2 331/117FE  
2 331/16  
2 331/1A  
2 331/34  
2 377/48  
2 455/182.3  
2 455/333

Combined Classifications

3 331/1A  
3 348/731  
3 455/76  
2 323/267  
2 323/283  
2 326/30  
2 326/86  
2 327/115  
2 327/117  
2 327/231  
2 327/237  
2 331/117FE  
2 331/16  
2 331/172  
2 331/1R  
2 331/34  
2 331/57  
2 377/48

2 455/182.3

2 455/333

2 455/86

2 714/716



PLUS Search Results for S/N 09698498, Searched November 13, 2002

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4249138  
5481223  
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4282742  
5937335  
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5278522  
5304955  
5311318  
5650738  
4330760  
4868891  
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4472815  
4631733  
4862450  
4931672  
5274766  
5382838  
5455544  
5661416  
5754560

6041225

6218817

6218817

4421952

4608458

4786903

5020131